A COMPARATIVE STUDY OF INTRA-UTERINE CONTRACEPTIVE DEVICES AND ORAL CONTRACEPTIVE PILL IN POST-M.T.P.

(Cases Conducted in the Institute of Maternal & Child Health, Calicut-8)

By

KADEEJA MUMTAZ AND A. K. SARADA

SUMMARY

A comparative study of 264 women following M.T.P. or Cu-T and Oral Pill is presented here.

The complications like expulsion in IUD, nausea and vomiting with oral pill was found maximum in the first month.

70% of the women continued to use the IUD at the end of one year, but only 44.14% continued with the oral pill. Failure rate was 1.35% with IUD and 7.14% with oral pill.

Introduction

First trimester Medical Termination of Pregnancy and provision of temporary contraceptive measures, mainly CuT and oral contraceptive pills has now turned out to carry a very important role in the Family Welfare Programme in India. An unwanted pregnancy is the best 'motivator' for contraceptive acceptance and women are explained and convinced of the importance of contraceptive practice when they approach Family Welfare Centres during that time. Till recent years, immediate post-abortal insertion of IUD was thought to carry increased risk of infection, menstrual disturbances and spontaneous expulsion. But several studies conducted both in India and outside disproved this showing no statistically significant increase in these side effects and expulsion rates after M.T.P. Provi-

sion of oral contraceptive pills was previously thought to be a safer and effective method by which we can avoid the alleged side effects of immediate post-abortal IUD insertion. This study was conducted with the purpose of knowing how much these two important temporary contraceptive measures are useful in our hospital class of people, a major portion of whom are socio-economically and educationally backward.

Material and Methods

The study was conducted on 264 women who had undergone first trimester MTP and had accepted either IUD (Cu-T) or oral pills, during the period of August 1984 to September 1985. Out of these; 222 women accepted CuT and only 42 women were provided with oral pills. Age group of IUD acceptors ranged from 18 to 42, but all oral pill acceptors were below the age of 30. Parity ranged from 1 to 4. Around 45% of both IUD and oral

pill users were low income group, below Rs. 200 per month (IUD users—46.85% and Oral pill users 43.24%). About 35% (32.43% of IUD users and 35.71% of oral pill users) were of educational status below 7th standard. Above S.S.L.C. education, there were 11.09% of IUD users and 23.85% of oral pill users. MTP was done either by tent dilatation or by rapid dilatation with Hegar's dilators. Cu-T was inserted at the completion of MTP or in oral pill acceptors, pill was instructed to be started from fifth day of MTP onwards. A course of Ampicillin 500 mg, 6th hourly for 5 days was given to all. Blood pressure and breast examination was done in all oral pill acceptors. All women were instructed to come for follow-up at the end of first month, third month, sixth month and one year or whenever any complications occurred.

Since the cases selected for study included only cases done during the period of August 1984 to September 1985 and follow-up period also extended only upto September 1985, only 160 cases of IUD and 36 cases of oral pills, completed one year after MTP and contraceptive introduction. But in order to limit fallacy due to limited number of cases, cases were selected which could complete at least 6 months, ranging from 6 months to 11 months. So follow-up values listed below upto 6 months are common for all cases but when incidence percentage at completion of one year is calculated, it is the percentage of those who could complete one year (Tables I and II).

It is evident from the Tables that the side effects and expulsion rates of IUD were maximum in the first three months and after that there is an abrupt fall during 2nd half of follow-up. Even at the end of one year, the percentage of women with side effects were double in case of oral pill users compared to IUD wearers. In case of IUD wearers, the rate of expulsion/displacement resulting in removal was maximum during the first month, high upto completion of first three months, then falling to 1.25% at the end of one year.

Failure rates in the form of pregnancy was 1.35% in IUD wearers compared to 7.14% in oral pill users, even though no patient who took tablets regularly became pregnant.

Discussion

It was seen that the number of patients who had side effects with IUD, had a

TABLE I
Follow Up of I.U.D.

Events	1st month		3rd month		6th month		1 year	
	No.	%	No.	%	No.	%	No.	%
Menstrual disorders	29	13.2	21	9.4	9	4.0	6	3.7
Abdominal pain	22	9.8	20	9.0	7	3.1	5	3.12
Discharge P/V	44	20.0	18	8.0	5	4.4	5	3.12
Temperature rise and other signs of pelvic infection	2	0.9						
Spontaneous expulsion displacement	20	9.0	14	6.3	4	1.8	2	1.25
Total		52.9		32.7		13.3		11.19

TABLE II
Follow Up of Oral Pills

Events	1st month		3rd month		6th month		1 year	
	No.	%	No.	%	No.	%	No.	%
Nausea, vomiting	8	19.04	6	14.28	2	4.76		
Break through bleeding	5	11.9	4	9.52				
Weight gain	6	14.28	9	21.42	4	9.52	3	8.33
Headache	2	4.76	1	2.38				
Depression	1	2.38						
Discharge P/V	6	14.28	10	23.8	9	21.42	6	16.66
Development of hypertension					1	2.38		
Total		66.64		71.4		38.08		24.99

gradual fall as the duration of contraceptive practice increased. 52.9% of women suffered some kind of side effects or had expulsion or displacement of IUD during 1st month when the percentage of women at completion of one year with these was only 11.19%. Even though no major side effect like thromboembolism occurred in the study group of women on oral pills, percentage of women with minor side effects were higher compared to IUD wearers—66.64% during first month and 22.99% of women who completed one year of oral pill usage.

Bleeding and pain constituted the reason for 10.82% of women who discontinued IUD usage at the end of 6 months (Table III). Spontaneous expulsion rate in the present study was 10.8%.

Study conducted by Sabita Tejuja, N. C. Saxena and S. D. Chawdhury showed rates of expulsion of IUD with an abrupt fall from 4.42% to below 1% after second month. In the present study also, the rate of expulsion comes down from 9% in the first month to 1.25% at the end of the first year.

According to Tietz and Lewit, pelvic infection is maximum in first 15 days of IUD insertion, 7.7/100 WY, declining to 2.2/100 WY after 1st year. In the present study, incidence of pelvic infection was only 0.9% and it was during 1st month and no case was reported after first month. No case of uterine perforation, ectopic pregnancy or septic abortion was detected in the study group.

TABLE III
Discontinuation Rates of I.U.D.

Reasons	Discontinuation rate in women 6 months follow up		Discontinuation rate in women completed one year follow up	
	No.	%	No.	%
1. Pregnancy	1	0.41	2	1.25
2. Expulsion/displacement	38	16.58	26	16.25
3. Bleeding/pain	24	10.82	10	6.25
4. Non-medical reasons	12	5.4	10	6.25

Incidence of side effects of oral pills ranges from 5-25% of people, according to Dewhurst. Mohapatra (1971) reported that about 67% had one or more complaints. In the present study also, incidence of side effects, even though minor were high, incidence of nausea and vomiting decreased abruptly after three months and is in correlation with all other studies of oral pill therapy—17% according to Mohapatra (1970), 16% according to a survey on British Pill Users (1970).

Incidence of break through bleeding as a side effect of oral pills, according to Mohapatra is 4.8%, in a British study it was 11% and in the present study it ranged from 9.52% to 11.9%. Incidence of weight gain in oral pill users is reported as 4-50% (Dewhurst). In the present study it reached upto 21.42% in the first three months. Depression was seen only in one patient. Incidence of discharge per vaginum amounted upto 23.8%. But incidence of vulvo-vaginal candiasis was only 7.14%, reported incidence of which ranged from 6-20% by Rohatiner and Grimble (1970). Incidence of erosion cervix was 4.8% when the reported incidence is 5% according to Roland. Development of hypertension occurred only in one patient (2.38%), when the reported incidence is 4% (Dewhurst).

Failure rate (pregnancy rate) for post M.T.P. IUD users were 1.35% and that of post M.T.P. oral pill users were 7.14%. Continuation rate of IUD at the end of one year was 70%, which approaches almost the values of many studies; Tietze (1970-74) 4%, S. J. Segal and F. Hefnewi 78.8% (postabortal), Lise Fortier (1973-75) 75.83%. In the case of oral pills, continuation rate was 44.44% at the end of one year when the other studies show 86%—R. Bairagi and co-workers (1980) 65-80%—USA study. But an Indian study conducted by Mohapatra, Sugathan and T. N. Sharma (The Oral Pill Piolet Project in India, 1971) shows a still lower value of 39.3%.

Conclusions

In the present study it is evident that the side effects, failure rates, expulsion/displacement rate and continuation rates at the end of one year of IUD use is not much different from the internationally accepted rules of IUD use. Even though immediate post MTP insertion of IUD is conducted of having more side effects and expulsion rates it is found that the rates are not much increased compared to world wide studies in which IUD is inserted as an interval procedure. On the other hand a large proportion of oral pill users suffered side effects, even though minor, like break through bleeding, neusea, vomiting and discharge per vaginum and the continuation rate was very poor, 44.44%. Failure rate was also very high in the form of pregnancy 7,.14% compared to 1.35% in case of IUD users. All the women who became pregnant had history of irregular intake of pills and it must be attributed to illiteracy in the hospital class of people.

Most of the Indian studies also show a similar continuation rate of below 50% and is because the major bulk of women attending family planning clinic being of poor socio-economic status who are careless in their own good health, so that they fail to approach the clinic regularly for supply of pills. In a country like India it is a national wastage to expend huge amounts on costly hormonal tablets and IUD is a far better temporary contraceptive method even in post MTP cases.

References

1. Bairagi, R. and co-workers: Institute of Statistical Research and Training, Univer-

sity of Decca. International Journal, 18: 264-267, 1980.

2. Hefnawi, F. and Segal, S. J.: Analysis of Intrauterine contraception. North Holland Publishing Co. Amsterdam, Oxford. American Elsevier Publishing Co. Inc. New York, 1975, pages 165-170 and page 117.

3. Lise Fortier: Am. J. Obstet. Gynec. 115: 271, 1973.

4. Maxwell Roland: Response to contraception. Vol. 5 in the series Major Problems in Obstet. Gynec. W. B. Saunders Co., Philadelphia, London, Toronto, p. 102.

5. Mohapatra, Sugathan and Sarma, T. N.: Quoted in Postgraduate Obstet. Gynec. (Text Book by Krishna Menon, P. K. Devi and Bhaskar Rao, p. 463.

6. Tejuja, Sabita, Saxena, N. C. and Mal-

hotra, V.: Contraceptive Testing Unit, Indian Council of Medical Research, New Delhi, India—quoted in 'Analysis of Intrauterine contraception' by Hefnawi and Segal, S. J. (Ref. No. 2), page 167.

7. Sir Dewhurst, John: Integratel Obstetrics and Gynaecology for Postgraduates, 3rd Edition, 1981. Black Well Scientific Publications, Oxford, London, Edinburgh, pp. 513-515.

8. Rohatiner and Grimble: Quoted in Integrated Obstet. Gynec. for Postgraduates by Sir John Dewhurst (Ref. No. 8) page 514.

9. Tietze and Lewit: Evaluation of Intrauterine Devices—Nineth Progress Report of Co-operative Statistical Programme Stud. Family Planning, 55: 1, 1970.